



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,287	05/02/2001	Bahadir Erimli	F0696	3831
45114	7590	10/27/2004	EXAMINER	
HARRITY & SNYDER, LLP 11240 WAPLES MILL ROAD SUITE 300 FAIRFAX, VA 22030			HSU, ALPUS	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,287

Applicant(s)

ERIMLI ET AL.

Examiner

Alpus H. Hsu

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 2665

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by LAM in U.S.

Patent No. 6,345,371

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Referring to claim 1, LAM discloses a network device (12) configured to control communication of data frames between stations (14s), comprising: a plurality of input ports (70a, 70b and 72a) configured to receive data frames from the stations (col. 5, lines 39-41); a plurality of output ports (70c, 70d and 72c) configured to transmit the data frames to their intended destinations (col. 6, lines 16-20); data frame processing logic (40) configured to identify data forwarding information for the received data frames, the data forwarding information identifying at least one output port (col. 5, lines 47-56); and a plurality of output queues (58a-58d) corresponding to the plurality of output ports, each output queue being configured to store data

Art Unit: 2665

forwarding information associated with the received data frames, wherein each output queue includes a configurable number of portions corresponding to priorities associated with the received data frames (col. 6, lines 16-26, col. 8, lines 4-9).

Referring to claim 2, LAM discloses the data frame processing logic being configured to: determining a priority associated with each received data frame (col. 6, lines 5-13), and store data forwarding information in the portion of the output queue corresponding to the priority associated with the data frame (col. 6, lines 16-26).

Referring to claim 3, LAM discloses that the plurality of output queues comprises a first and second groups of output queues (col. 8, lines 4-9).

Referring to claim 4, LAM discloses an overflow engine (514) configured to transfer data forwarding information associated with the data frame to an external memory (36), when the portion of the output queue is full (col. 9, lines 62-64, col. 11, line 65 to col. 12, line 1).

Referring to claim 5, LAM discloses a register (518) configured to store information indicating a number of entries that may be stored in each portion of the output queue (col. 13, lines 49-56).

Referring to claims 6 and 7, LAM discloses that the number of entries is programmable and the entries are corresponding to priority levels (col. 13, lines 5-20).

Referring to claim 8, LAM discloses that each output queue comprises a random access memory and configurable number of portion is sixteen (col. 10, lines 7-19, 40-50).

Referring to claim 9, LAM discloses, in a network device that controls communication of data frames between stations, a method comprising: receiving a data frame on a first input port (col. 5, lines 39-41); identifying data forwarding information identifying at least one output port

Art Unit: 2665

(col. 5, lines 47-56); generating a forwarding descriptor for the data frame, the forwarding descriptor including a frame pointer that identifies a location in external memory where the data frame is stored and a priority associated with the data frame (col. 6, lines 5-13); and storing at least a part of forwarding descriptor in a portion of output queue, wherein each output queue includes a configurable number of portions corresponding to priorities associated with the received data frames (col. 6, lines 16-26, col. 8, lines 4-9).

Referring to claim 10, LAM discloses that a number of entries that may be stored in each portion of the output queue (col. 13, lines 49-56).

Referring to claims 11 and 12, LAM discloses that the number of entries is programmable and the entries are corresponding to priority levels (col. 13, lines 5-20).

Referring to claim 13, LAM discloses further step of: transferring the part of the forwarding descriptor from the first output queue to a transmit buffer; retrieving a data frame identified by the frame pointer from external memory; storing the data frame in the transmit buffer; and forwarding the data frame via the first output port (col. 6, lines 16-26).

Referring to claim 14, LAM discloses a network device (12) configured to control communication of data frames between stations (14s), comprising: a plurality of input ports (70a, 70b and 72a) configured to receive data frames from the stations (col. 5, lines 39-41); a plurality of output ports (70c, 70d and 72c) configured to transmit the data frames to their intended destinations (col. 6, lines 16-20); a plurality of output queues (58a-58d) corresponding to the plurality of output ports, each output queue being configured to store data forwarding information associated with the received data frames, wherein each output queue includes a configurable number of portions corresponding to priorities associated with the received data

Art Unit: 2665

frames (col. 6, lines 16-26, col. 8, lines 4-9) a register (518) configured to store information indicating a number of entries that may be stored in each portion of the output queue (col. 13, lines 49-56); and processing logic (40) configured to receive frame header information for a first data frame, (col. 5, lines 47-50), identify data forwarding information for the received data frames, the data forwarding information identifying at least one output port (col. 5, lines 47-56), generating a forwarding descriptor for the data frame, the forwarding descriptor including a frame pointer that identifies a location in external memory where the data frame is stored and a priority associated with the data frame (col. 6, lines 5-13); and storing at least a part of forwarding descriptor in a portion of output queue, wherein each output queue includes a configurable number of portions corresponding to priorities associated with the received data frames (col. 6, lines 16-26, col. 8, lines 4-9).

Referring to claim 15, LAM further discloses a plurality of transmit modules, each being configured to: transfer part of the forwarding descriptor from output queue to transmit buffer, retrieve a data frame identified by the frame pointer from external memory; store the data frame in the transmit buffer; and transmit the data frame via the first output port (col. 6, lines 16-26).

Referring to claims 17-19, LAM discloses that the number of entries and the number of portions are programmable and the entries are corresponding to priority levels (col. 13, lines 5-20).

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2665

Erimli et al., Merchant, Leung, Sang et al., Lau et al. and Tzeng et al. are all cited to show the common feature of data frames queuing in a network switch port utilizing data frame processing device and output queues similar to the claimed invention.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH



Alpus H. Hsu
Primary Examiner
Art Unit 2665